

ANSWER SHEET

Pass mark that our PLASABLE team have set for this exam is 117/180

1	D	31	E	61	B	91	C	121	C	151	C
2	B	32	A	62	E	92	D	122	E	152	C
3	A	33	C	63	E	93	B	123	C	153	A
4	A	34	D	64	C	94	E	124	E	154	D
5	E	35	C	65	B	95	C	125	A	155	C
6	C	36	E	66	C	96	A	126	B	156	E
7	B	37	B	67	D	97	B	127	B	157	A
8	B	38	B	68	A	98	D	128	A	158	C
9	B	39	B	69	B	99	A	129	C	159	A
10	A	40	C	70	E	100	B	130	C	160	A
11	B	41	D	71	E	101	C	131	C	161	A
12	D	42	A	72	A	102	D	132	B	162	D
13	B	43	B	73	C	103	A	133	B	163	D
14	B	44	B	74	C	104	C	134	B	164	A
15	A	45	E	75	C	105	C	135	A	165	A
16	A	46	E	76	A	106	D	136	A	166	E
17	D	47	D	77	B	107	C	137	E	167	A
18	B	48	D	78	E	108	D	138	C	168	A
19	D	49	E	79	C	109	D	139	D	169	B
20	C	50	B	80	A	110	C	140	B	170	A
21	A	51	D	81	A	111	C	141	B	171	B
22	E	52	A	82	A	112	D	142	D	172	A
23	C	53	A	83	C	113	D	143	A	173	B
24	D	54	C	84	A	114	C	144	B	174	C
25	C	55	B	85	C	115	B	145	D	175	A
26	D	56	D	86	D	116	A	146	A	176	C
27	E	57	C	87	B	117	E	147	B	177	E
28	D	58	C	88	C	118	B	148	C	178	B
29	C	59	E	89	C	119	B	149	D	179	A
30	A	60	E	90	E	120	C	150	A	180	C



NO.	PLASABLE EXPLANATIONS (Some of the explanations are not complete but they will be complete at the end of the last day of the course. All explanations will be updated on this day too to better answer your questions during the discussion on the last day)
1	Quantity of medication in words and figures. This is crucial for controlled drugs prescriptions, where the risk of misuse is high. It ensures clarity and minimises the risk of dosing errors.
2	This is local anaesthetic toxicity with the typical symptoms being paraesthesia and tinnitus followed by hypertension and reduced consciousness. Treatment is with a 20% intralipid infusion. The hypertension is secondary to the lidocaine toxicity - antihypertensives such as amlodipine is not the solution.
3	The pain on abduction between 60 to 120 degrees, also known as the painful arc, is a classic sign of supraspinatus involvement.
4	This is likely an stroke and requires a CT head to rule out a haemorrhagic stroke. This is NOT Bell's palsy, as the question describes an UPPER motor neuron lesion. Bell's palsy will result in total paralysis of the side of the face, including the forehead on the affected side.
5	Vascular dementia is often associated with risk factors such as hypertension and atrial fibrillation and can present with a stepwise decline in cognitive function following multiple infarcts or strokes.
6	The ischaemic changes on the ECG correspond with a lateral myocardial infarction which involves the left circumflex artery. (Leads I, AvL, V5 and V6)
7	In a pregnant woman with a history of recurrent pregnancy loss and positive anti-cardiolipin antibodies, the management focuses on preventing thrombotic events, which are a known risk in antiphospholipid syndrome. Aspirin and heparin have been shown to improve pregnancy outcomes in women with antiphospholipid syndrome.
8	Adam
9	Naloxone to reverse opioid toxicity. Opioids result in pupillary constriction. Benzodiazepines would result in mild pupil dilatation or just a normal pupil.
10	Von Willebrand disease is predominantly inherited in an autosomal dominant pattern.
11	The amoxicillin is not appropriate due to the penicillin allergy. Clarithromycin is an option but you would have to stop the statins.
12	The first step is to check whether the woman has had chickenpox before by checking her varicella IgG serology. If positive, she can be reassured. If negative (meaning she has not had chickenpox before), aciclovir should be offered as prophylaxis.



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13	The first-line treatment for prolactinomas, particularly when symptomatic, is medical management with dopamine agonists. Cabergoline is preferred over bromocriptine due to its higher efficacy and lower adverse effect profile. Surgical resection, radiotherapy, and observation are generally considered in cases where medical therapy is ineffective, contraindicated, or in the presence of certain complications related to the adenoma.
14	A suspected scaphoid fracture with a normal initial x-ray should be immobilized and reviewed in 2 weeks.
15	CTPA is the most appropriate here given a suspected PE. The CXR is normal here.
16	Labetalol is the first line management of hypertension in pregnancy. A threshold of 140/90 should be used. Labetalol must be avoided in patients with asthma due to the risk of bronchospasm.
17	She is hypotensive. The immediate or next appropriate step in managing this patient would be to obtain IV access via 2 large-bore intravenous cannulas and start the patient on intravenous fluids. Then endoscopy.
18	Aortic stenosis = Ejection-Systolic murmur radiating to the carotids
19	Subcut cyclizine would be helpful here. hyoscine butylbromide is helpful for spasms for intestinal obstruction but does not quite help with vomiting
20	This patient is deficient in vitamin D with symptoms. The loading regimen should provide a total of approximately 300,000 international units of vitamin D, given either as separate weekly or daily doses over 6–10 weeks. Maintenance therapy of vitamin D should then be continued, 800–2000 IU daily.
21	Long-QT syndrome is a cardiac electrophysiological disorder, which can lead to sudden cardiac death. The mainstay of treatment for patients with symptomatic long-QT syndrome, especially with a history of syncope, is the use of beta-blockers. These medications help in reducing the occurrence of life-threatening arrhythmias. Immediate cardioversion (B) is used in acute settings where there is haemodynamic instability due to arrhythmias, not as a first-line treatment in stable long-QT syndrome. Calcium channel blockers (C) are not typically used in the treatment of long-QT syndrome. An implantable cardioverter-defibrillator (ICD) (D) might be considered in severe cases or in patients with recurrent symptoms despite medical therapy. Lifestyle modifications (E) are recommended, mainly to avoid triggers, but they are not sufficient as the sole treatment for this condition.



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22	Impetigo is a very contagious Group A strep bacterial infection of the skin. It usually occurs around the mouth and crust, golden-brown patches develop around the sores
23	<p>The Montreal Cognitive Assessment (MoCA) is a widely recognized tool for evaluating cognitive function, particularly sensitive to detecting mild cognitive impairment. It assesses several cognitive domains such as attention, memory, language, executive functions, visuospatial skills, and orientation. This tool is more comprehensive and sensitive for detecting milder forms of cognitive impairment compared to others, making it suitable for a patient like the one described. Mini-Mental State Examination (MMSE) is also used for cognitive assessment but is less sensitive than MoCA for detecting mild cognitive impairment. The Clock Drawing Test is a simple and effective tool to screen for cognitive impairment but does not provide a comprehensive assessment of all cognitive domains. The Geriatric Depression Scale is used to assess depression in the elderly, not cognitive impairment. The Barthel Index for Activities of Daily Living assesses the patient's ability to perform daily activities. This is important to assess how she is managing, but here you want to test specifically for cognition. Picking out ACE vs MOCA is tough. Here is a paper showing they are quite equivalent for identifying mild cognitive impairment - https://pubmed.ncbi.nlm.nih.gov/31571881/</p>
24	<p>Tension pneumothorax</p> <ul style="list-style-type: none"> = Increasing shortness of breath following trauma = Hyper-resonance on affected side = Reduced air entry on affected side = Trachea deviated away from the affected side (not mentioned in question) <p>Cardiac tamponade</p> <ul style="list-style-type: none"> = Muffled heart sounds = Raised JVP = Hypotension <p>The answer will not be haemo-pneumothorax in the exam - clinical scenario not easy to differentiate.</p>



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25	Rapid eye movement (REM) Sleep Behavior Disorder involves the enactment of dreams during REM sleep due to the loss of normal muscle atonia that typically occurs. Actions of punching and shouting, particularly in the latter half of the night when individuals spend more time in the REM stage of sleep, is characteristic of REM Sleep Behavior Disorder. It is often related to alpha-synucleinopathies such as Parkinson's disease but can occur many years before the diagnosis.
26	This man has taken a paracetamol overdose. N-Acetylcysteine should be started immediately when the patient has reduced consciousness or the timing of ingestion is not clear. His wishes written on the paper are not legally binding.
27	Both hepatitis B vaccine and hepatitis B immunoglobulin (HBIG) should be administered to the newborn as the most effective method to prevent hepatitis B transmission from a mother who is positive for hepatitis B. The vaccine initiates the baby's immune response against the virus, while HBIG provides immediate passive immunity. This combined approach significantly reduces the risk of the newborn acquiring hepatitis B. The hepatitis B vaccine alone is less effective than the combination of the vaccine and HBIG in the case of maternal hepatitis B infection while HBIG alone provides only short-term protection and does not initiate the baby's own immune response against hepatitis B. A full course of the hepatitis B vaccination is required as a single dose of the hepatitis B vaccine is not effective in stimulating a sustained immune response against the virus. No treatment or vaccination is not an appropriate choice given the mother's confirmed acute hepatitis B infection, as it leaves the newborn at high risk for infection.
28	Isoniazide is an enzyme inhibitor, which leads to a raised INR due to reduced metabolism of warfarin.
29	Release cast. Severe + escalating pain would make you think of compartment syndrome
30	This is acute alcohol withdrawal, which should be managed with a long acting benzodiazepine. Acute alcohol withdrawal occurs after ~6 hours from the last alcoholic drink. Note this question is NOT delirium tremens - which occurs 48-72 hours from the last drink. The patient is not confused.



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31	Psychotic depression, also known as major depressive disorder with psychotic features, is characterised by the presence of depressive symptoms along with psychotic symptoms such as hallucinations (hearing voices or seeing things that are not there). Schizophrenia is primarily characterised by persistent psychotic symptoms. While the patient has hallucinations, her prominent mood symptoms and the context of these symptoms (following the death of her husband) point more towards psychotic depression. Atypical Depression is subtype of depression is characterised by mood reactivity (mood brightens in response to positive events) and specific features like increased appetite or sleep, which are not described in this case.
32	Administration of mineralocorticoid receptor antagonists (spironolactone) reduces the risk of hypertensive crisis during surgery for Conn's syndrome.
33	Achilles tendon rupture. Gastrocnemius muscle is affected.
34	The junior doctor is NOT your patient, therefore performing a clinical examination, requesting investigations or prescribing antibiotics will not be the correct answer. The doctor should be advised to make a GP appointment and if he does not feel he can work, should go home sick.
35	Scabies! Classic picture. The severe pruritus, especially at night, and the distribution of the lesions on the hands, wrists, and axillae are characteristic of scabies.
36	The patient's capacity to make the decision should be assessed. A diagnosis of dementia does not mean the patient lacks capacity to make a specific decision.
37	<p>Ureteroscopy (with likely stenting) is often the preferred approach for stones in the ureter, particularly when they are larger than 5 mm. This method allows for direct visualisation and removal of the stone, and stenting helps in managing any associated hydronephrosis. Sometimes we just use the term ureteroscopy without actually saying stenting or stone removal.</p> <p>Percutaneous nephrolithotomy is reserved for larger stones (>20mm)</p> <p>Extracorporeal Shock Wave Lithotripsy (ESWL), is generally preferred for kidney stones located in the renal pelvis and of size between 5-10mm</p>
38	129 patients with Hepatitis E had a negative AJ-test (false negative - those who tested negative but have the disease).



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	The patient's presentation with acute onset headache, ptosis, and a fixed, dilated pupil (suggestive of an oculomotor nerve palsy), and eye deviation, raises a high suspicion for an aneurysm, particularly a posterior communicating artery aneurysm. CTA is a rapid, non-invasive imaging technique that is highly effective in detecting cerebral aneurysms and is the investigation of choice in this scenario.
38	A good question to compare where a MRI scan is the answer would be "CS 4821" In "CS 4821" the answer is an MRI scan because the symptoms suggest a possible intracranial process, like a tumour, which could be causing pressure on the eye muscles or nerves. An MRI scan is more sensitive for soft tissue detail and is better for visualizing intracranial tumours. But in THIS scenario here, this 47 year old woman has an acute onset of symptoms with specific signs pointing towards a third cranial nerve palsy. An aneurysm is thought of in this case and so a CTA is more appropriate.
40	This patient gives a history of irritable bowel syndrome, with normal investigations and no evidence of colonic inflammation (normal faecal calprotectin). Faecal calprotectin is an inflammatory protein which will be raised in inflammatory bowel disease and infections but negative in irritable bowel syndrome.
41	Elevated levels of CRP are common in rheumatoid arthritis. MCV + MCHC is within normal range. Anaemia of chronic disease fits best. Sickle cell anaemia can also have normocytic anaemia but would not make sense given the hx of raised CRP and rheumatoid arthritis.
42	This patient is a non-responder to the hepatitis B vaccine. He has been vaccinated against hepatitis B but has a negative Hepatitis surface antibody. He should receive a further vaccination.
43	Loss of sensation along the ulnar side of the right hand, difficulty with fine motor tasks, and a "claw" hand deformity particularly affecting the pinky and ring fingers — are indicative of an ulnar nerve injury. The ulnar nerve innervates the interosseal muscles of the hand, which are responsible for the abduction (spreading apart) and adduction (bringing together) of the fingers.
44	Xanthochromia, the yellow discoloration of cerebrospinal fluid (CSF) caused by hemoglobin catabolism, is classically thought to arise within several hours after subarachnoid hemorrhage (SAH).



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45	Given the lack of specific information about the exact substances involved, the most appropriate initial step would be to provide supportive care with intravenous fluids and close observation while awaiting further assessment and possibly toxicology results. It is hard to say what substance this is. Opioids would typically give constricted pupils rather than dilated. Benzodiazepines tend to result in respiratory depression which we do not see here. Also, profuse sweating is not a typical feature of benzodiazepine.
46	Life threatening asthma. - Cyanosis - Hypotension - Silent chest - PEFR <33% - Sats <92% Inability to complete sentences in one breath is a sign of severe asthma, but not specific to life threatening.
47	Stage 1 hypertension - HBPM more than 135/85 but less than 150/95 mmHg. BUT she has cardiovascular risk at 10% which means we should offer an antihypertensive. No point giving another statin (she is already on atorvastatin)
48	A side effect of Pyrazinamide is acute gout.
49	Testicular torsion. Don't delay! You need to salvage the testicle.
50	This woman should be offered combined hormonal replacement therapy (oestrogen and progesterone). Oestrogen-only hormone replacement therapy would be inappropriate as she still has a uterus - increasing the risk of endometrial hyperplasia/malignancy. Measuring FSH adds no value - it will obviously be high because of the lack of negative feedback from ovarian hormones. Clomiphene is not used as a hormone replacement therapy. Evening primrose oil is a complementary therapy and is not prescribed or recommended.
51	Grave's disease - most specific test is Anti-thyroid stimulating hormone receptor antibodies (TSHR-Ab).
52	Gilbert's disease = genetic condition (usually autosomal recessive) leading to recurrent mild unconjugated hyperbilirubinaemia. The precipitating factors include stress, acute illness and menstruation.



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53	The gradual increase in urine output over time suggests a transient issue rather than a sustained injury or systemic cause such as acute kidney injury. The most plausible explanations are catheter kinking or blockage. Unlikely to be dehydrated as the anaesthetist would administer fluids.
54	Women with HIV are recommended NOT to breastfeed due to the risk of vertical transmission. Formula milk is provided. Antiretroviral therapy should be continued throughout pregnancy. Women who have an undetectable viral load are unlikely to pass on HIV to their babies. The mode of delivery will depend on the viral load of the mother in the third trimester. If undetectable, a vaginal delivery will be recommended. Barrier nursing is not required for HIV.
55	Oral vancomycin is recommended for the initial treatment of C. diff infection.
56	First line treatment for gestational diabetes is diet and exercise, followed by metformin then insulin. Gestational diabetes is confirmed on an oral glucose tolerance test with readings ≥ 5.6 for fasting blood glucose and ≥ 7.8 for the 2 hour blood glucose reading.
57	The Intrauterine System (IUS) is an effective treatment for menorrhagia, NICE CKS considers it to be the first line. https://cks.nice.org.uk/topics/menorrhagia-heavy-menstrual-bleeding/management/management#:~:text=In%20current%20practice%20%20the%20levonorgestrel,life%20and%20satisfaction%20with%20treatment.
58	Primary = Secondary to a parathyroid gland adenoma (high calcium, vitamin D, and PTH levels and a low phosphate level) Secondary = Secondary to hypocalcaemia (Low serum calcium and vitamin D levels, and high phosphate and PTH levels) Tertiary = Choose this in CKD/kidney transplant with HIGH calcium (high serum calcium, phosphate, and PTH and low vitamin D levels) Quaternary = Do not choose this in PLAB
59	Serology is the best one to pick for leptospirosis.



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50	<p>Due to her low weight and over exercising, she has disrupted her hypothalamic-pituitary-gonadal axis. This is a type 1 ovulation disorder and is managed with weight gain and reducing strenuous exercise.</p> <p>Premature ovarian insufficiency is confirmed when</p> <ul style="list-style-type: none"> - Under age 40 - Oligo/amenorrhoea for at least 4 months - FSH >25 on two occasions 4 weeks apart
51	Renal colic - results from kidney stones and is typically characterized by the kind of sudden, intense pain described in the scenario
52	In diabetes, the first line treatment for hypertension should be an ACE inhibitor (unless black/Afro-caribbean, then it should be an ARB)
53	Oral terbinafine is an effective treatment for tinea pedis, especially in cases where topical antifungals have not been successful. It is particularly useful in instances where there is a significant degree of inflammation and scaling, as seen in this patient's picture.
54	This is a secondary pneumothorax due to his underlying lung disease. A chest drain is required.
55	Mirtazapine is considered a good option here. It has a lower risk of interacting with warfarin. Venlafaxine can also increase bleeding risk.
56	Creatinine Kinase is a marker for muscle breakdown, as seen in myositis secondary to statins.
57	<p>Paralytic ileus is a common postoperative complication, particularly following abdominal surgery like appendectomy. It is characterised by a decrease or absence of bowel movements and sounds, due to temporary paralysis of the bowel. It is important to note the hyperresonant is on percussion. It is not hyperactive bowel sounds (as one would imagine during the early stages of mechanical obstruction).</p> <p>Mechanical intestinal obstruction is less likely to occur so soon post-operatively without a history of previous abdominal surgeries or evident complications.</p>
58	Sedation of aggressive patients with Parkinson's disease should involve the use of lorazepam. Haloperidol is contraindicated in Parkinson's disease as it can result in worsening motor function or psychosis.



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68	Common in this age group. Hypertrophy and hyperplasia of the pyloric muscle lead to obstruction, causing forceful vomiting that does not contain bile.
70	Ropinirole, a dopamine agonist, can be used for the treatment of restless legs syndrome.
71	TP/TP+FN 55/100. I've just inverted the columns so I put the disease ones on the right side instead of the left to make it more confusing.
72	Anti-Jo1 antibodies = myositis. The history suggests Gottron papules on his knuckles and possibly stomach cancer, associated with dermatomyositis. Polymyositis does not have dermatological findings.
73	Dapagliflozin, a sodium-glucose co-transporter 2 (SGLT2) inhibitor, has been shown to be beneficial in patients with type 2 diabetes and CKD. It not only helps in controlling blood glucose levels but also has a protective effect on the kidneys and can slow the progression of CKD.
74	The inferior epigastric artery can be injured during secondary port insertion. It originates from the external iliac artery.
75	Rx in 6 weeks is appropriate. No signs of infection so just conservative management.
76	This is describing Delta waves within Wolff-Parkinson-White.
77	This is acute angle closure glaucoma. Timolol drops is the management.
78	Mumps is an acute, generalised infection caused by a paramyxovirus, usually in children and young adults. Classically, there is inflammation of the parotid glands bilaterally, leading to pain at or near the angle of the jaw. The swelling causes distortion of the face and neck with skin over the gland hot and flushed but there is no rash.
79	Cetirizine. This is in line with the treatment of urticaria where non-sedating antihistamines like cetirizine are considered first-line therapy.
80	Gout leads to the formation of needle-shaped monosodium urate crystals within the joint.
81	Doctors have a duty to maintain patient confidentiality. Reporting the doctor to his employer, educational supervisor or the GMC would breach this unless there is a clear public safety risk or legal obligation to report.
82	Polymyositis and Dermatomyositis lead to rise in creatinine kinase. Dermatomyositis also has a characteristic rash which are not present here.



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83	These are common symptoms of benzodiazepine overdose. A respiratory rate of 7 breaths per minute indicates respiratory depression. The arterial blood gas values, particularly the elevated PaCO_2 , are consistent with respiratory depression, which can be caused by benzodiazepine overdose.
84	Anterior uveitis = Red, painful eye with cells in the anterior chamber and prominent ciliary vessels. It is commonly associated with HLA B27.
85	Suggestive of orbital cellulitis, a serious infection that involves the tissues surrounding the eye. Orbital cellulitis can rapidly progress and potentially lead to serious complications, including vision loss and intracranial infections. Prompt and aggressive treatment with IV antibiotics in a hospital setting is typically recommended.
86	Dysphagia, particularly to solids with weight loss in the elderly = oesophageal carcinoma. There are no other signs of CREST syndrome (limited cutaneous systemic sclerosis) or SLE.
87	$\text{NNVT} = 1/\text{ARR}$ $\text{ARR} = \frac{\text{ARC}}{\text{ART}}$ $= \frac{40/200}{18/100}$ $= 0.04$ $\text{NNVT} = 1/0.04$ $= 25$
88	Tetanus vaccine = toxoid
89	Sertraline can result in hyponatraemia. Hyponatraemia can lead to symptoms like confusion, fatigue, and other mental changes.
90	This is giardiasis. Symptoms are very similar to coeliac disease (bloating, steatorrhea), usually with a travel history.
91	In the case of a hordeolum, often known as a stye, the first-line treatment typically involves applying warm compresses to the affected eyelid.
92	This patient has acute meningitis and has presented to A&E. Ceftriaxone should be administered right away. Intramuscular benzylpenicillin is ONLY to be used if in the community & surgery.



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24	ESR is often elevated in conditions involving inflammation, such as polymyalgia rheumatica, which could be consistent with his symptoms of persistent muscle pain and fatigue in the hips and shoulders.
25	A suction catheter is an appropriate method of removing a seed from the external anal sphincter. Irrigation must not be used, organic material such as seeds due to the risk of spreading infection to the skin. Desquamation is a technique used with glue to remove anal warts. Painful, tender skin.
26	Doxy is most appropriate for Lyme disease with pen allergy.
27	Holmes-Adie pupil A benign condition associated with a dilated pupil which is slow to respond to a light stimulus and then contracts but is not normal. It is usually unilateral.
28	GORD is common in infants. Thickeners are one of the first things to try. Thickening the formula can help reduce the frequency of regurgitation. Ranitidine is no longer available in the UK. All licenses for ranitidine medicines were suspended by the European Commission and the Medicines and Healthcare products Regulatory Agency (MHRA) in 2019 due to the presence of N-nitrosodimethylamine (NDMA), a probable human carcinogen.
29	Carbamazepine is used for trigeminal neuralgia.
30	The first-line treatment for ingeminal neuralgia is carbamazepine. Slipped upper femoral epiphysis (SUFE) = Displacement of physis of the proximal femur. It is a condition of the hip joint. The appearance on X-ray. The management is surgical.
31	A stoma can bypass the obstructed segment of bowel which can alleviate symptoms and improve quality of life.
32	This patient who is immunosuppressed due to chemotherapy, presents with signs and symptoms suggestive of herpes zoster ophthalmicus (HZO), a reactivation of the varicella-zoster virus in the ophthalmic branch of the trigeminal nerve. In immunosuppressed patients, varicella-zoster virus reactivation can be severe. The treatment of choice if the patient is not on HZV prophylaxis is intravenous acyclovir. If the patient is on HZV prophylaxis, then oral acyclovir is appropriate.
33	Magnesium sulfate is a Pediatric Enoxone. It is appropriate for use due to its effectiveness in providing analgesia for long-term management of chronic constipation in children.



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104	Orofacial dyskinesia is a condition characterized by repetitive involuntary movements, most commonly affecting the face, tongue, and mouth. It is a known side effect of long-term use of antipsychotic medications, particularly older ones, such as typical antipsychotics.
105	venlafaxine, combined HRT and also oestrogen only HRT should be avoided in patients with breast cancer.
106	Flaccid knee, reflex weakness in leg extension and sensory loss in the anterior thigh and medial leg suggest involvement of the femoral nerve.
107	Staphylococcus aureus is the most common causative organism in actinonal maxillitis.
108	A buckle fracture, also known as a torus fracture, is a common type of injury in children due to the relative flexibility and resilience of their bones compared to adults. In this scenario, a child falling onto an outstretched arm is a typical mechanism for a buckle fracture. The force of the fall causes the bone to compress and buckle rather than break completely. The fact that there is no deformity is consistent with this.
109	This test helps in confirming the diagnosis of NPH and also predicts the response to surgical treatment, such as ventriculoperitoneal shunting. An improvement in symptoms following the CSF drainage trial would strongly support a diagnosis of NPH and indicate a potential benefit from shunt surgery.
110	Aciclovir. This is shingles (herpes zoster). Treat with aciclovir.
111	Lamotrigine is often considered a first-line treatment in pregnancy for new-onset epilepsy due to its favourable safety profile in terms of teratogenic risks.
112	This patient's history of drug abuse and prolonged immobility, combined with his clinical presentation and elevated urea and creatinine, strongly points towards rhabdomyolysis. Elevated levels of CK in the blood are a hallmark of rhabdomyolysis.
113	Topical treatments like dimethicone 4% lotion are generally preferred as first-line treatments for head lice. They are effective, have a good safety profile, and are easy to use.
114	Intranasal fluticasone is a intranasal steroid. It is used for nasal polyps as first line. Oral pred is also one that is used for short term in patients with severe symptoms but usually only after a trial of intranasal corticosteroids.



NO	<p>PLAUSIBLE EXPLANATIONS Some of the explanations are not complete but they will be complete at the end of the 14th day of the course. All explanations will be updated on this day, so to better answer your questions during the discussion on the 14th day.</p>
116	<p>The most appropriate indication for a two-week wait (2ww) referral for an upper gastrointestinal endoscopy in this scenario is severe epigastric pain while severe epigastric pain on its own may not always necessitate a 2ww referral. Its combination with weight loss, particularly in a patient aged 55 years or older, significantly heightens the clinical urgency.</p> <p>Severe epigastric pain, particularly when it is persistent and unexplained, can be indicative of an upper gastrointestinal malignancy, such as gastric cancer or lower oesophageal cancer.</p>
116	<p>This is a common presentation to memory clinics whereby young patients present with subjective memory problems following minor head injuries. There is often difficulty with concentrating and short-term memory whereas recall for long-term memory is largely preserved. A family history is important to suggest genetic causes of dementia, however, developing dementia above the age of 80 is more likely to be sporadic dementia. This question asks which screening test is most appropriate. The Hospital Anxiety Depression Score (HADS) is a useful screening tool for depression and anxiety while the Apathy Motivation Index (AMI) was designed to detect apathy. Mood is an issue in this case but this isn't a primary depression and there is a clear financial cause for this low mood. The mini-mental state examination (MMSE) and abbreviated mental examination score (AMT-8) are both structured screening tools for cognitive difficulties and dementia. The answer for this question is the LHTA as it is more in-depth and gives a score out of 16 compared to AMTs which is 10 quick questions. The LHTSE (the LHTA) gives more information when examining cognitive ability. The Wechsler Adult Intelligence Scale (WAIS) is a good test of general intelligence and IQ but is reserved for more in-depth profiling of cognition which is not indicated at this early stage.</p>
117	<p>The choice of fentanyl is the most appropriate for managing severe pain in a patient with sickle cell disease experiencing a vaso-occlusive crisis.</p> <p>While iv paracetamol can be used as an adjunct for pain management, it is less potent and not appropriate for sickle cell crisis.</p>



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119	<p>Fibro: Widespread pain. Symptom duration. The patient should report symptoms for at least three months. In addition to these criteria, the diagnosis of fibromyalgia requires the absence of any other identifiable disorders that may explain the patient's symptoms. It is important to note that there are no specific laboratory or imaging tests to confirm the diagnosis of fibromyalgia. The diagnosis is primarily based on the patient's clinical presentation and symptoms, as well as the exclusion of other conditions.</p>
118	<p>The description of the lesion as a bright red, dome-shaped and smooth surfaced skin lesion is characteristic of a cherry angioma.</p> <p>Cherry angiomas are common benign skin growths that can develop in many areas of the body and are usually found in people aged 30 and older. They are typically small, round, and red, and they can vary in size but usually, between 0.1–1 cm. The lack of symptoms like pain or itching and the non-bleeding nature of the lesion upon examination further supports this diagnosis.</p>
120	<p>The clinical features described are suggestive of Acromegaly. In a typical individual without Acromegaly, oral administration of glucose suppresses the secretion of growth hormone. In patients with Acromegaly, however, this suppression does not occur, and growth hormone levels remain inappropriately high after glucose ingestion.</p>
121	<p>A CT scan is typically the first-line imaging modality for detecting liver metastases, especially in patients with a history of colorectal cancer.</p> <p>An abdominal ultrasound is a good initial test too, but it is less sensitive and specific than a CT scan for detecting small metastases. So often, if one suspects liver metastasis, a CT scan would be organised instead of an ultrasound scan.</p> <p>While other imaging techniques like FDG PET scan and MRI can also be used, they are generally considered after a CT scan, particularly if further detailed evaluation is necessary.</p>
122	CXR should be the 'first imaging you request' even when thinking about PE.



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123	<p>The clinical presentation of left-sided facial weakness and arm weakness along with slurred speech and a history of hypertension and type 2 diabetes is suggestive of a stroke. In this scenario, the most likely artery affected is the middle cerebral artery (MCA). It's key to remember that the MCA is the most frequently involved artery in stroke cases.</p>
124	<p>Adjustment disorder given that it is just 3 weeks (<6 months) and has a successful</p>
125	<p>Ignorin oxinity can cause various cardiac rhythm disturbances including bradycardia. Overdose of levothyroxine can cause arrhythmias but commonly achy arrhythmias. Metformin is primarily used for the treatment of type 2 diabetes. While hypoglycaemia can cause collapse, it is rare with metformin. Insulin is used in combination with other glucose-lowering medications. Moreover, metformin-induced hypoglycaemia does not typically lead to bradycardia. There is no reason she should be taking lithium based on her medical history.</p>
126	<p>The use of prednisolone is recommended as a treatment for Bell's palsy, but it should be administered within 72 hours of symptom onset. Acyclovir is not usually recommended by itself, unless there are clear signs of a herpes simplex virus infection. Getting a CT head scan is generally unnecessary unless there are unique features that suggest an alternate diagnosis.</p>
127	<p>Bipolar affective disorder experiences episodes of elevated mood (feeling on top of the world, needing little sleep, engaging in numerous activities) alternating with periods of depression (intense sadness, low energy, loss of interest in activities, thoughts of self-harm). Cyclothymia is much more mild when compared with BAD, usually without major depression.</p>



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<p>128</p>	<p>The hallmark of GBS is acute onset of ascending muscle weakness. In the vignette, the woman has a rapidly progressing difficulty in walking, which aligns with the typical presentation of GBS. Additionally, the absent deep tendon reflexes in the lower limbs further support this diagnosis.</p> <p>Diabetic neuropathy most commonly presents as a sensory polyneuropathy with symptoms like tingling, pain, or numbness. Sensory tends to be before motor loss.</p> <p>MG → Normal tendon reflexes MS → Increased tendon reflexes</p>
<p>129</p>	<p>In the UK, individuals diagnosed with epilepsy are required to cease driving immediately and notify the DVLA. They are generally not permitted to drive for 1 year from the date of their last seizure.</p>
<p>130</p>	<p>For patients with type 1 diabetes mellitus undergoing minor surgery, the primary goal is to avoid both hypo- and hyperglycaemia. In this scenario, where the patient is nil by mouth, there is a risk of hypoglycaemia if her usual insulin regimen is continued. However, completely omitting insulin could lead to hyperglycaemia or even diabetic ketoacidosis. Reducing the dose of long-acting insulin helps maintain a baseline insulin level, reducing the risk of ketoacidosis while also diminishing the risk of hypoglycaemia due to fasting.</p> <p>Commence a variable rate intravenous insulin infusion on the morning of surgery is generally reserved for major surgery or when the patient's blood glucose levels are not well-controlled.</p>
<p>131</p>	<p>The ECG findings suggest that the patient is experiencing a third-degree complete atrioventricular (AV) block. Temporary pacing followed by permanent pacemaker.</p>
<p>132</p>	<p>Malaria: Do a thick and thin blood film. It is endemic throughout Cameroon. Interesting fact: Did you know that Cameroon started the world's first routine vaccine program against malaria, marking a significant stride in the global fight against this mosquito-borne disease? The vaccine has been approved by the World Health Organization (WHO). The programme began on January 22, 2024.</p>



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133	<p>The presentation of bilateral ankle swelling, particularly in the absence of pain, redness, or systemic symptoms, is consistent with amlodipine-induced peripheral oedema. This is a common side effect of calcium channel blockers, particularly amlodipine.</p>
134	<p>Dexamethasone is commonly used in the management of cerebral metastases, particularly in cases where there is evidence of raised intracranial pressure, as indicated by the woman's symptoms and imaging findings.</p>



NO.	<p>PLAUSIBLE EXPLANATION 5 (Some of the explanations are not complete but they will be complete at the end of the last day of the course. All explanations will be updated on this day too to better answer your questions during the discussion on the last day.)</p>
136	<p>The decision to proceed with or postpone the cystoscopy will be based on a comprehensive understanding of what would be in the patient's best interest, taking into account his medical needs, previously expressed wishes, and the input from his daughter, who is familiar with his values and preferences.</p> <p>Acting in the patient's best interest does not automatically mean proceeding with the procedure. Instead, it means making a decision that best serves the patient's overall health and well-being, considering all relevant factors.</p> <p>The first consideration is the medical necessity of the cystoscopy. If the procedure is critical for diagnosing or treating a potentially serious condition, delaying it could be detrimental to the patient's health. The benefits of the procedure should be weighed against the risks.</p> <p>The patient's daughter can provide valuable insight into his preferences and values. Her understanding of what her father would have wanted in this situation is an important factor in deciding the best course of action.</p> <p>Option B is a good choice too, but slightly less correct. While family members such as the daughter in this case are crucial in providing support and information about the patient's preferences and values, they cannot automatically give consent. When a patient's determined to lack capacity, healthcare providers have a responsibility to act in the patient's best interest. This involves considering the patient's known or previously expressed preferences, values, and beliefs, as well as the medical benefits and risk.</p> <p>Option E is done in complex cases where the patient's capacity to consent is compromised, and there might be uncertainty about their best interests or their previously expressed wishes. This would usually be the case when there are disagreements between family members or between the family and the healthcare team, which is not seen in the stem above.</p>



NO.	<p>PLAUSIBLE EXPLANATIONS (Some of the explanations are not complete but they will be complete at the end of the last day of the course. All explanations will be updated on this day too to better answer your questions during the discussion on the last day.)</p>
136	<p>Alcohol is the answer here. His ethanol levels are very high. One can expect to be unconscious at values above 65.1 mmol/L. If it is below this value (65.1%), we'd suggest not thinking about alcohol as the reason for the unconsciousness.</p> <p>Other tips are that his pupils are normal. If they were dilated, you would think of amphetamines.</p> <p>The therapeutic blood concentration for aspirin (salicylate) typically ranges from 10 to 30 mg/dL and toxic levels are above 30 mg/dL. He probably just took a tablet of aspirin.</p>
137	<p>Sometimes air line markings are mentioned instead which refer to parallel linear shadows seen in bronchiectasis. This condition is characterised by permanent enlargement of parts of the airways of the lung. The patient's history of smoking and finger clubbing further support this diagnosis.</p>
138	<p>It is easy to mistakenly put amoxicillin as the answer here, especially if you read this question quickly, but ampicillin is incorrect.</p> <p>This is a case of atypical pneumonia suggested by a dry cough, malaise and patchy infiltrates on imaging. In contrast, typical pneumonia more often presents with lobar consolidation. The treatment for atypical pneumonia is clarithromycin.</p>
139	<p>The primary concern in croup is upper airway obstruction. Dexamethasone is effective in reducing the inflammation and swelling in the airways, which is the root cause of the distress in croup.</p> <p>Oxygen therapy is typically reserved for cases where there are signs of severe respiratory distress or significantly lower oxygen saturation levels. In the context of croup, oxygen therapy is typically considered if there are signs of significant respiratory distress or if oxygen saturation levels fall below 92%.</p> <p>In this specific vignette, oxygen saturation was not even given, likely not even measured because it is mild croup - there is no use of accessory muscles.</p>
140	<p>Given that the patient has a penicillin allergy, the suitable antibiotics for community-acquired pneumonia include doxycycline, clarithromycin, or erythromycin (in pregnancy). Only doxycycline is an option here.</p>



NO.	<p>PLABABLE EXPLANATIONS (Some of the explanations are not complete but they will be complete at the end of the last day of the course. All explanations will be updated on this day too to better answer your questions during the discussion on the last day.)</p>
141	<p>Progestogen-only contraceptives are generally preferred for breastfeeding women because they do not affect milk supply, and are considered safe for the baby. The combined oral contraceptive pill (COCP) is usually not recommended during the initial weeks of breastfeeding due to its potential effect on milk supply.</p> <p>Options C and D are not oral medications.</p>
142	<p>This is a broad-spectrum antibiotic effective against a wide range of organisms, including those commonly responsible for pelvic infections. It covers both Gram-positive and Gram-negative bacteria, as well as anaerobes.</p> <p>Flucloxacillin and penicillin are narrow spectrum. They target mostly gram positive bacteria only. Pelvic infections are often caused by a mix of aerobic and anaerobic bacteria, including Gram-negative organisms.</p> <p>Ciprofloxacin is good but again might not cover all the potential anaerobic pathogens.</p> <p>Just remember co-amoxiclav for endometritis!</p>
143	<p>Loperamide is an appropriate treatment option for managing the symptoms of diarrhoea-predominant IBS. It can help reduce diarrhoea and improve bowel regularity in some patients with IBS.</p>
144	<p>X-ray shows features of osteomyelitis - Localized bone loss. IV administration of antibiotics is typically chosen in severe cases of osteomyelitis. Flucloxacillin is effective against <i>Staphylococcus aureus</i> and often used as first-line. IV gentamicin is effective against certain types of Gram-negative bacteria but has limited efficacy against staph.</p>
145	<p>This is typical IBS. His clinical presentation lacks "red flag" features typically associated with colorectal cancer or inflammatory bowel disease. Mebeverine can help with abdominal cramps.</p>



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146	<p>Scabies: For typical cases of scabies, where the clinical presentation is strongly suggestive of the condition (such as in cases with a classic history and typical rash like in this case), treatment with permethrin is often initiated based on clinical diagnosis alone without the need for skin scrapings. This approach is particularly common in primary care settings. However, starting treatment without investigating is NOT an option given here. So, the next best investigation would be skin scraping.</p> <p>Skin scraping is the most appropriate investigation for suspected scabies. In this procedure, a small amount of skin is scraped off and examined under a microscope.</p>
147	<p>These symptoms align with common clinical manifestations of diverticulitis, particularly in elderly patients. The location of the pain in the right lower quadrant is typical for diverticulitis, as diverticula are most commonly found in the sigmoid colon, which is located in this area.</p> <p>Acute appendicitis typically presents with pain that starts around the umbilicus and later localises to the right iliac fossa. Symptoms like rectal bleeding and constipation are not typical for acute appendicitis.</p> <p>Ischaemic colitis often presents with sudden onset abdominal pain and rectal bleeding. It is more likely to occur in individuals with a history of cardiovascular disease and atherosclerosis. It usually affects different parts of the colon and often involves abdominal pain that is out of proportion to physical findings, which is not described in this case.</p> <p>Colorectal carcinoma presents typically with rectal bleeding and changes in bowel habits. Pain is not a prominent early symptom.</p> <p>Inflammatory bowel disease would present with a longer history of diarrhoea.</p>



NO	PLAUSIBLE EXPLANATIONS (Some of the explanations are not complete but they will be complete at the end of the last day of the course. All explanations will be updated on this day too to better answer your questions during the discussion on the last day)
148	<p>The key features in this patient that point towards cardiac tamponade include muffled heart sounds, hypotension (blood pressure < 90/60 mmHg), tachycardia (heart rate of 110 beats per minute) and cold peripheries indicative of poor perfusion. The muffled heart sounds in this vignette are the most important as this can only be seen in cardiac tamponade when compared with the other options.</p> <p>It is unclear what has caused the cardiac tamponade in this vignette. Cardiac tamponade can occur without trauma through several non-traumatic causes. Examples include pericarditis, cancer, renal failure, uraemia, lupus, radiation etc.</p>
149	<p>The patient cannot be given antibiotics that are part of the penicillin family like co-amoxiclav (option A) and flucloxacillin (option B).</p> <p>According to NICE CKS for a patient with penicillin allergy who has sustained an animal bite and requires antibiotic prophylaxis, the recommended antibiotic is a combination of metronidazole and doxycycline for a duration of three days.</p>
150	<p>Fluoxetine is a type of SSRI and is commonly used as a first-line pharmacological treatment for OCD. SSRIs are generally preferred due to their safety profile and tolerability. It is important to note that fluoxetine is not the only selective serotonin reuptake inhibitor (SSRI) that can be used as a first-line treatment for obsessive-compulsive disorder (OCD) in adults. Other SSRIs including escitalopram, fluvoxamine, paroxetine, and sertraline are also licensed and effective for treating OCD.</p>
151	<p>Carbimazole, a medication used to treat hyperthyroidism, can have a side effect of agranulocytosis, which is a significant drop in white blood cells. The presentation of a sore throat and fever in a patient on carbimazole raises concern for this condition. A low white cell count on the FBC would support this diagnosis and necessitates urgent medical intervention. This should be treated as priority over the other options.</p>



NO.	<p>POTENTIAL EXPLANATIONS (Some of the explanations are not complete but they will be complete at the end of the last day of the course. All explanations will be updated on this day too to be relevant to answer your questions during the discussion on the last day)</p>
152	<p>In this case, as long as the patient has normal vitals, he is alright to be managed as an outpatient.</p> <p>Measles is generally more common in children however, adults can still contract measles if they have not been previously vaccinated or if they have not had the disease before. Measles in adults can be more severe compared to children, with a higher risk of complications.</p>
153	<p>The patient's presentation is highly suggestive of a subarachnoid haemorrhage (SAH). Key features include a sudden, severe headache location which is located at the base of the skull, and neck stiffness. While fever can be present in SAH, its absence, along with the acute presentation makes an infectious process like meningitis less likely. In such a case, a CT head is the first-line investigation.</p>
154	<p>These symptoms are suggestive of mumps, a viral infection typically caused by the mumps virus. His lack of the MMR (measles, mumps, and rubella) vaccination in childhood significantly increases his susceptibility to contracting mumps.</p> <p>The management of mumps mainly involves supportive care since it is a self-limiting viral illness.</p> <p>Oral acyclovir is an antiviral medication but is not effective against the mumps virus.</p>
155	<p>Sarcoidosis is characterised by non-caseating granulomas in various organs commonly affecting the lungs. Bilateral inspiratory Crackles. This finding on chest auscultation is indicative of lung involvement, which is a hallmark of sarcoidosis. Bilateral Hilar Lymphadenopathy on Chest X-Ray. This is a classic radiographic finding in sarcoidosis. Systemic symptoms such as night sweats can occur in sarcoidosis but they are usually not as pronounced as in conditions like tuberculosis or lymphoma. However, the overall picture mentioned in all the other points suggests sarcoidosis as the diagnosis.</p>
156	<p>The cause of death in part 1a of the death certificate should reflect the direct cause of death, which in this case is myocardial infarction, evidenced by the severe chest pain and the ECG changes.</p>



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157	<p>One of the main features here is that the AST is double the ALT. This is suggestive of alcoholic liver injury. GGT is also raised. Bilirubin both raised unconjugated and conjugated which is consistent with alcoholic hepatitis.</p> <p>Cholelithiasis would result in ALP to be significantly raised + biliary colic.</p> <p>Jaundice is not a common initial presentation of chronic pancreatitis.</p>
158	<p>Key features of LBD include fluctuating cognition with pronounced variations in attention and alertness; recurrent visual hallucinations (typically well-formed and detailed, as in the case of seeing small animals), and motor symptoms consistent with Parkinsonism (such as stiffness and slow movement). All of which are in the stem.</p>
159	<p>Lump that protrudes during bowel movements and can be pushed back in along with occasional bleeding are characteristic of haemorrhoids.</p> <p>Rectal prolapse involves the rectum itself protruding from the anus, not just a lump or swollen veins. Unlike haemorrhoids which can be easily pushed back in, a rectal prolapse often stays protruded and may require manual repositioning or may not be able to be pushed back at all.</p>
160	<p>In cases of viral meningitis where the patient is clinically stable with no signs of severe infection or complications, outpatient management is typically appropriate. Viral meningitis is often a self-limiting condition and the mainstay of treatment is supportive care. This includes adequate hydration, rest, and analgesia for symptom control, such as paracetamol for fever and headache.</p> <p>Starting intravenous acyclovir would be appropriate if there were a high suspicion of herpes simplex virus (HSV) as the cause of viral meningitis.</p>



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161	<p>The woman's symptoms of progressive muscle weakness in both arms and legs combined with muscle wasting, fasciculations, twitching, slurred speech and choking on liquids are characteristic of MND. MND affects both the upper and lower motor neurons. Upper motor neuron signs are indicated by brisk reflexes, while lower motor neuron signs are shown by muscle wasting and fasciculations. This combination of symptoms and signs strongly suggests MND.</p> <p>The other options are incorrect.</p> <p>Myasthenia Gravis: While myasthenia gravis can cause muscle weakness, it typically presents with fatigable weakness and often involves ocular muscles, which is not mentioned in the vignette. The presence of fasciculations and the specific pattern of reflex changes are also not characteristic of myasthenia gravis.</p> <p>Multiple Sclerosis (MS): MS could present with a variety of neurological symptoms, but symptoms often relapse and remit, especially in the early stages of the disease. Progressive forms of MS do exist, but the course tends to be more fluctuating. The motor signs tend to be more variable, can include spasticity and weakness, but without the marked muscle wasting seen in MND.</p> <p>Guillain-Barre Syndrome (GBS): GBS typically presents with a more acute onset of ascending paralysis and areflexia (absence of reflexes), which is not consistent with the findings in the vignette.</p> <p>Rheumatoid Arthritis: Rheumatoid arthritis does not cause the neurological signs such as fasciculations and brisk reflexes seen in this patient.</p>
162	<p>Pompholyx, also known as dyshidrotic eczema, is characterised by small itchy blisters on the hands and feet. The most appropriate initial treatment is the use of a potent topical corticosteroid, such as betamethasone, to reduce inflammation and itching. The other options listed (oral flucloxacillin, oral amoxicillin, metronidazole and topical vitamin D) are not typically used as first-line treatments for pompholyx.</p>



NO	<p>PLAUSIBLE EXPLANATIONS Some of the explanations are not complete but they will be complete at the end of the last day of the course. All explanations will be updated on day 10 after answering all questions during the discussion on the 7th day.</p>
162	<p>The main difference between option A and D is that option D has intravenous insulin infusion. Insulin infusion is normally given an hour after starting intravenous normal saline. Regular monitoring of blood glucose and electrolytes along with adjustments to therapy based on the patient's response is also a critical part of the management. However, option A omits the crucial component of insulin therapy which is the main reason option D becomes more suitable.</p>
163	<p>Ordering thyroid function tests is the most appropriate next step in this scenario, likely hyperthyroidism. While an ultrasound is important in the diagnosis of thyroid disease, it is not necessary for confirming the diagnosis of hyperthyroidism. The T3/T4 test is a direct measurement of thyroid function and additional investigations like a neck ultrasound scan in primary care as it can result in diagnostic delay.</p>
164	<p>Starting treatment with carbimazole should only be considered after confirming the diagnosis with thyroid function tests.</p>
165	<p>A thyroid storm is a life-threatening condition which is absent in this stem. Features of a thyroid storm would include a heart rate of more than 140 bpm or arrhythmias like atria fibrillation, fever, altered mental status, and severe vomiting.</p> <p>Needs A&E assessment: In primary care settings like GP clinics, immediate access to X-ray facilities may not be available. Clinicians working in the GP clinics refer patients for X-rays, which usually involves sending them to a hospital or a diagnostic imaging centre. Even if the clinician marks it as urgent, it is unlikely to be done on the same day. In cases of suspected serious conditions requiring immediate attention such as suspected fractures or bowel obstruction, patients would need to be referred to a hospital and to emergency A&E department where X-rays can be done on the same day.</p>
166	<p>In a patient with a history of prostate cancer presenting with new persistent back and neck pain without any recent trauma, the concern for metastatic disease must be high. The differential diagnosis is prostate cancer. Although the PSA test is a useful tool and an important part of the management, the most sensitive imaging modality for detecting spinal metastases and would be the most appropriate next step in management to rule out metastasis.</p>



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167	<p>We would classify this as a subpar question or even an unfair question. We write these questions because we want to mirror the ambiguous questions you would get in the exam. Often in exams questions are framed in a way that tests understanding of specific concepts and intricacies of the language used. In real life one would obviously know if the patient has been shocked already.</p> <p>In cases of ventricular fibrillation, particularly in the context of cardiac arrest, the correct intervention is defibrillation, not DC cardioversion. The terms are sometimes used interchangeably in common language, but there is a significant difference in a clinical setting. Defibrillation is an unsynchronised shock used in the emergency treatment of life-threatening cardiac arrhythmias, especially ventricular fibrillation and pulseless ventricular tachycardia, while DC cardioversion is a synchronised shock typically used for stable rhythms such as atrial fibrillation.</p> <p>So the best answer here would be defibrillation, but this is not given as an option.</p> <p>The next best option is intravenous amiodarone. This choice is based on the assumption that defibrillation attempts have already been made.</p> <p>In some situations where there is a rare event of ambiguity in a question where two options could be deemed correct after the examination, GMC would review the question and the circumstances surrounding the ambiguity. If it is found that two answers could reasonably be considered correct, the board might decide to award marks for either answer. In some cases, they might also choose to remove the question from the scoring altogether. In this specific question, we have chosen to go with just ONE answer, A. Good luck.</p>



NO.	<p>PLAUSIBLE EXPLANATIONS (Some of the explanations are not complete but they will be complete at the end of the last day of the course. All explanations will be updated on this day too to better answer your questions during the discussion on the last day)</p>
168	<p>In the case of a patient with incidentally found gallstones who is asymptomatic, the best management is often a conservative approach. This is because the majority of individuals with gallstones do not develop symptoms.</p> <p>Regular monitoring of liver function tests (LFTs) in asymptomatic gallstone patients is not routinely indicated. LFTs are more relevant in symptomatic patients, particularly if there is suspicion of complications like cholecystitis or choledocholithiasis.</p> <p>Surgery, such as cholecystectomy, is generally reserved for symptomatic patients. In asymptomatic individuals, the risks of surgery may outweigh the benefits, especially considering that many people with gallstones never develop symptoms.</p>
169	<p>Below 40 - do an US. Reassurance is not useful here as she is just below 40. We should confirm the lump although clinically sounds like a fibroadenoma.</p>
170	<p>The key indicators for this diagnosis are the high serum calcium and elevated parathyroid hormone (PTH) levels. Primary hyperparathyroidism is characterised by the overproduction of PTH, leading to hypercalcaemia. The absence of symptoms like bone pain or kidney stones does not rule it out, as it can be asymptomatic or present with non-specific symptoms like weakness and fatigue.</p> <p>Vitamin D Deficiency typically leads to hypocalcaemia, not hypercalcaemia, and would not explain the elevated PTH.</p> <p>Hypercalcaemia of malignancy could cause elevated calcium levels, but the hypercalcaemia in malignancy is often significantly higher too (of course the degree of hypercalcaemia can vary based on the type and stage of the malignancy as well as the mechanism causing the hypercalcaemia). Additionally, PTH is usually not elevated in malignancy-related hypercalcaemia.</p>
171	<p>Postherpetic neuralgia. Pick a neuropathic pain medication. The only option here is gabapentine.</p>



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172	<p>The most appropriate initial action would be to start high-dose corticosteroids. This is the standard initial treatment for nephrotic syndrome in children, particularly for minimal change disease, which is the most common cause of nephrotic syndrome in this age group. Corticosteroids are effective in reducing inflammation and proteinuria in most cases. We do not start by doing a biopsy. In fact, we rarely do any biopsies. We only do it if there are atypical features or it does not respond to medical therapy.</p>
173	<p>This is acute otitis media (given the perforation). Not otitis externa. Antibiotics is required here as clinically she is ill with a fever + discharge. Oral antibiotics are suitable for acute otitis media. Amox cannot be given as she is pen allergic so oral clarithromycin is the next best.</p>
174	<p>Symptoms of dark-coloured urine and oedema that happen weeks after is typical for PSGN.</p> <p>We prefer the term "post-infectious glomerulonephritis" rather than "post-streptococcal glomerulonephritis". It is often considered a more inclusive and accurate description compared to "post-streptococcal glomerulonephritis". However, in the exam setting, you may find "post-streptococcal glomerulonephritis" used.</p> <p>Many candidates would have picked IgA nephropathy incorrectly. In IgA nephropathy, patients frequently experience episodes of haematuria that occur concurrently or shortly after an upper respiratory infection. This typically happens within a day or two of the infection (rather than weeks). This is a key distinguishing feature of IgA nephropathy and is due to the deposition of IgA antibodies in the glomeruli of the kidneys during or immediately following an infection.</p>
175	<p>In the UK, current guidelines recommend that patients who have experienced a suspected transient ischaemic attack (TIA) within the last 7 days should be referred to see a specialist within 24 hours of onset of symptoms.</p>



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176	<p>Pink frothy sputum is a classic symptom associated with pulmonary oedema, especially in acute or severe cases. The pink colour of the sputum is due to the presence of blood, a result of the rupture of small blood vessels within the lungs due to increased pressure. The frothiness is due to the mixture of this fluid with air in the lungs.</p> <p>In this case, the pulmonary oedema is likely caused from heart failure given his history of hypertension.</p> <p>Pleural effusions rarely cause pink frothy sputum, which is more characteristic of pulmonary oedema.</p>
177	<p>The X-ray clearly shows a patella fracture. There is displacement of the fractured fragment. The fragments are separated by a noticeable gap.</p> <p>We feel that more and more X-rays will be asked in future exams as the exam takes into account the MLA content map. So we have put this one here to start testing your knowledge on lateral X-rays of the knee.</p> <p>Patella fractures are typically best visualised using a lateral X-ray of the knee. While an anteroposterior (AP) or anterior X-ray of the knee can also be used, it is less effective for diagnosing patella fractures. This is because the patella lies anterior to the distal femur, and in the AP view, the patella is superimposed over the femur, which can obscure details of the fracture. So, it would be reasonable to start looking for a patella fracture when a lateral X-ray of the knee is provided in an MCQ, especially in the context of direct trauma to the knee.</p>
178	<p>Acute psychosis can be triggered by various factors, including substance use. The close temporal relationship between the onset of psychotic symptoms and the recent initiation of cannabis use strongly suggests a substance-induced psychosis.</p> <p>Delusional disorder is not typically associated with substance use. Also, it typically has a more gradual onset and is characterized by the presence of one or more non-bizarre delusions that persist for at least one month. In this case, the sudden onset of symptoms following recent cannabis use aligns more closely with acute psychosis, especially considering the short duration of symptoms (24 hours).</p>



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179	Wilms' tumour, also known as nephroblastoma, is a common renal malignancy in children and often presents as an asymptomatic abdominal mass. It typically presents in children aged 3 to 4 years old. It's usually a large, smooth, and firm mass that can be felt on one side of the abdomen. Children with Wilms' tumor are often otherwise well, which aligns with the description of the child appearing well despite the abdominal distension.
180	<p>In the case of an umbilical hernia in a child, particularly one that is asymptomatic and reducible like in the scenario presented, the standard approach is to monitor the condition as these hernias often resolve spontaneously. Surgery is usually reserved for hernias that do not close by the time the child is 4-5 years old, are particularly large, or if they cause symptoms or complications.</p> <p>The use of a truss is not typically advised because these hernias often resolve spontaneously without intervention.</p>
	We kindly request that you refrain from sharing this BIG MOCK. If you come across anyone who does, please inform us. Thank you.

